



Quick revision module (UPSC prelims 2022) Geography

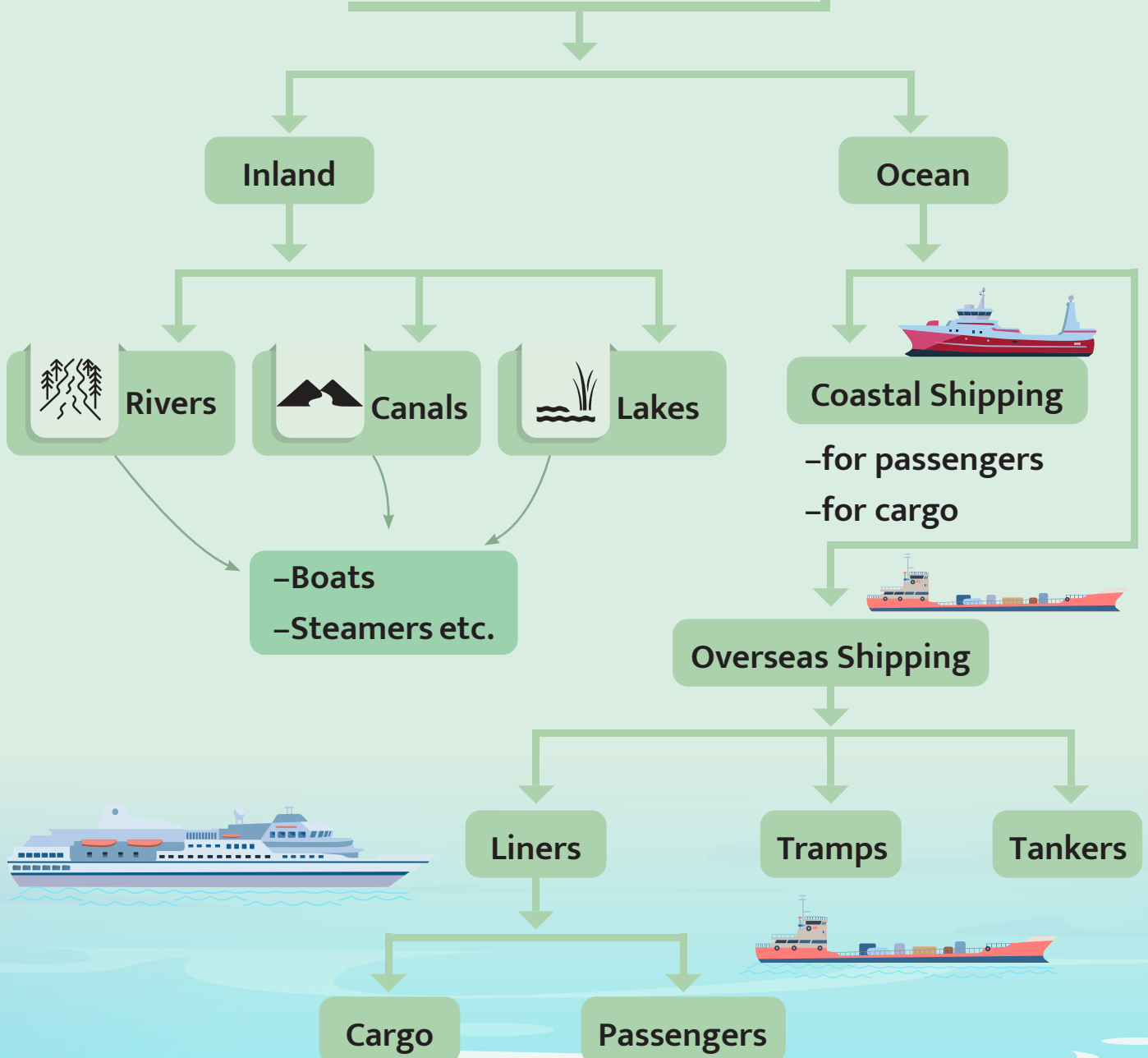
WATER TRANSPORT



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● INLAND WATERWAYS: ●



Necessary Conditions

1. Perennial river or water should flow in sufficient quantity throughout the year.

Seasonal rivers are unsuitable for navigation.

2. Inconvenient in rivers having rapids or waterfalls.
3. Water in rivers, lakes and canals should not freeze during winter season.
4. Silt deposition should not be there.
5. The course of rivers should not be full of curves as it increase the time of Transportation.
6. Rivers should not change their courses during floods.



Advantages

1. Transportation of heavy and bulky goods is easy and cheap. Coal, different ores, wood and big size manufactured goods are suitable for water transport.
2. Rivers and lakes are natural routes. Expenditure on their construction and maintenance is not required.
3. Waterways experience comparatively few accidents.
4. Rivers are the only means of transport in thick forested lands of heavy rainfall.





Limitations

1. Time is lost due to slow speed. Hence, they are not suitable for transporting perishable.
2. Most of the rivers flow far away from the densely populated areas where demand for transportation is more. Hence, this mode of transportation presents difficulties.
3. Seasonal change in the flow and depth of water creates problem in transportation.
4. Added expenditure: For keeping desired depth in the rivers, lakes and canals, silting of sand and soil is to be removed regularly.



● DISTRIBUTION OF INLAND WATERWAYS IN INDIA ●



National waterway-1 (1986):

Allahabad–Haldia stretch of the Ganges–Bhagirathi–Hooghly River of total length 1620 km. Passes through UP, Bihar, Jharkhand and West Bengal.

National Waterway-2 (1998):

Sadiya–Dhubri stretch of the Brahmaputra River of total length 891 km. The river Brahmaputra receives a number of tributaries like Subansiri, Jia Bharali, Dihing, Burhi Dihing, Disang, Dhansiri and Kopili.

National Waterway-3 (1993):

Kollam–Kottapuram stretch of West Coast Canal and Champakara and Udyogmandal canals of total length 205 km. This waterway comprises of natural lakes, back-waters, river sections and man-made canal sections. The Champakara and Udyogmandal canals link industrial centres of Ambalamugal and Udyogmandal with the Kochi port.

National Waterway- 4 (2008):

Kakinada–Pondicherry stretch of canals and Kaluvelly tank, Bhadrachalam–Rajahmundry stretch of River Godavari and Wazirabad–Vijayawada stretch of River Krishna of total length 1095 km.

National Waterway-5 (2008):

Talcher–Dhamra stretch of rivers, Geonkhali–Charbatia stretch of East Coast Canal, Charbatia–Dhamra stretch of Matai river and Mahanadi delta rivers of total length 620 km.

National Waterway-6 (2013):

Lakhipur-Bhanga stretch of 121 km of the Barak. It will result in unified development of the waterways for shipping and navigation and transportation of cargo to the North Eastern Region particularly in the states of Assam, Nagaland, Mizoram, Manipur, Tripura and Arunachal Pradesh.

DISTRIBUTION OF INLAND WATERWAYS IN THE WORLD

IMPORTANT WATERWAYS

Rhine Waterway

- Flows through Switzerland (source), Germany, France, Belgium and the Netherlands.
- On its banks are located main cities of Europe like Strasbourg {France}, Bonn, Cologne, Dusseldorf and Rotterdam.
- Cargo of industrial products, coal food grains in addition to passengers and tourists

Danube Waterway

- The Danube rises in the Black Forest of Germany and flows eastwards through Austria, Slovak Republic, Hungary, Croatia, Bulgaria, Romania and other countries and then joins the landlocked Black Sea.
- Cargos carrying export items are wheat, maize, timber, and machinery sail in the river along with tourism.

Great Lakes- St. Lawrence Seaway

- This waterway flows through the St. Lawrence River of the United States and Canada. It is therefore the longest and busiest inland waterway of the world.
- Agro-products, machines, iron ore, coal, petroleum, limestone, etc. are mainly transported from the ports like Duluth and Buffalo, which are equipped with all modern facilities.
- The Great Lakes region of North America consists of Lakes Superior, Michigan, Huron, Erie and Ontario.

Mississippi Waterway

- Mississippi River has its source in Lake Itasca in Minnesota and flow in interior parts of North America joining the Gulf of Mexico.
- About 16 km north its tributary Saint Louis Missouri joins it.
- The Mississippi-Ohio waterway connects the interior part of U.S.A with the Gulf of Mexico in the south.

Volga Waterway

- Volga is Europe's biggest river and has large number of developed waterways.
- After rising from in the Valdai Hills north-west of Moscow, it drains into Caspian Sea. Oka River is its major right bank tributary.
- The river is connected to river Don by a canal which flows into the Black Sea



TYPES OF PORTS ON THE BASIS OF CARGO:

Industrial Ports

Locations

These ports specialise in bulk cargo-like grain, sugar, ore, oil, chemicals and similar materials.

Example

Mundra Port, Gujarat and Jawahar Lal Nehru Port Trust

Commercial Ports

Locations

These ports handle general cargo-packaged products and manufactured goods. These ports also handle passenger traffic.

Example

Mumbai Port

Comprehensive Ports

Locations

Such ports handle bulk and general cargo in large volumes. Most of the world's great ports are classified as comprehensive ports.

Example

Chennai and Mumbai Port

TYPES OF PORTS ON THE BASIS OF FUNCTION:

Oil Ports

Locations

Deal in the processing and shipping of oil.

Example

Maracaibo in Venezuela, Esskhira in Tunisia, and Tripoli in Lebanon are tanker ports. Abadan on the Gulf of Persia is a refinery port.

Ports of Call

Locations

Originally developed as calling points on main sea routes where ships used to anchor for refuelling, watering and taking food items. Later on, they developed into commercial ports.

Example

Aden, Honolulu and Singapore are good examples.

Packet Station or ferry ports

Locations

Exclusively concerned with the transportation of passengers and mail across water bodies covering short distances.

Example

They occur in pairs and located in such a way that they face each other across the water body, e.g. Dover in England and Calais in France across the English Channel.

Entrepot Ports

Locations

These are collection centres where the goods are brought from different countries for export.

Example

Singapore is an entrepot for Asia, Rotterdam for Europe, and Copenhagen for the Baltic region

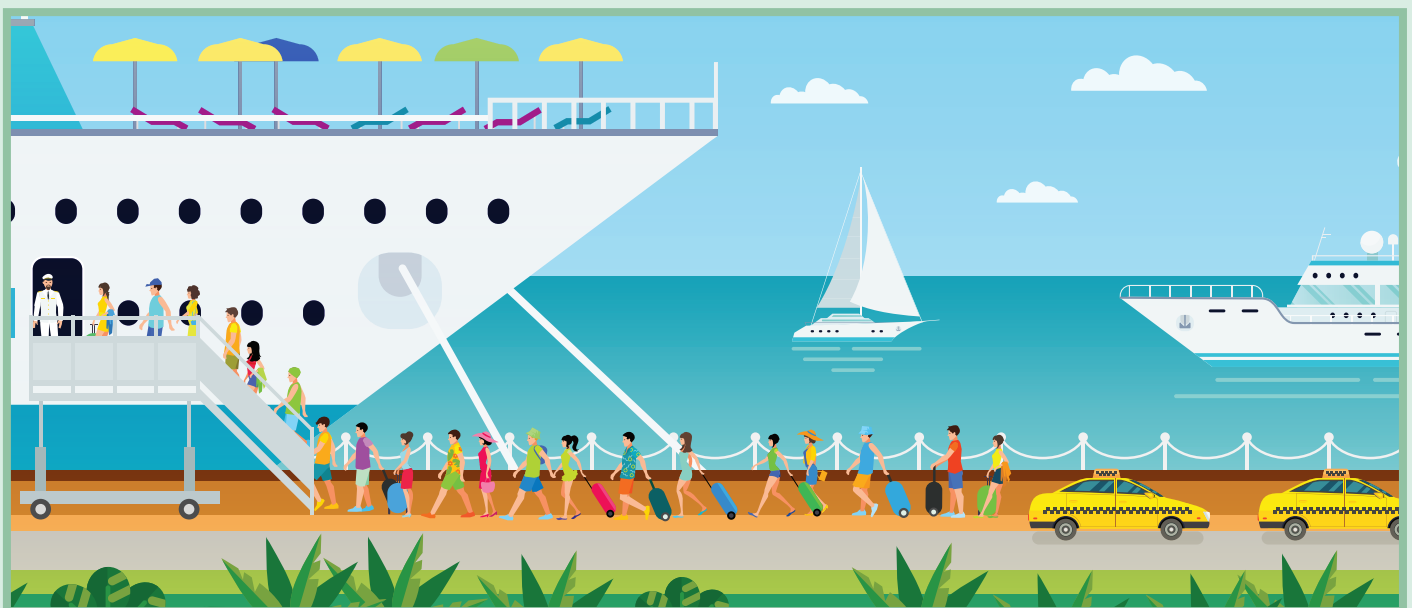
Naval Ports

Locations

Strategically important. These ports serve warships and have repair workshops for them.

Example

Kochi and Karwar are examples of naval ports in India



TYPES OF PORTS ON THE BASIS OF LOCATION:

Inland Ports

Locations

These ports are located away from the sea coast.

They are linked to the sea through a river or a canal.

Such ports are accessible to flat bottom ships or barges.

Example

Manchester is linked with a canal; Memphis is located on the river Mississippi; Rhine has several ports like Mannheim and Duisburg; and Kolkata is located on the river Hooghly.

Ports of Call

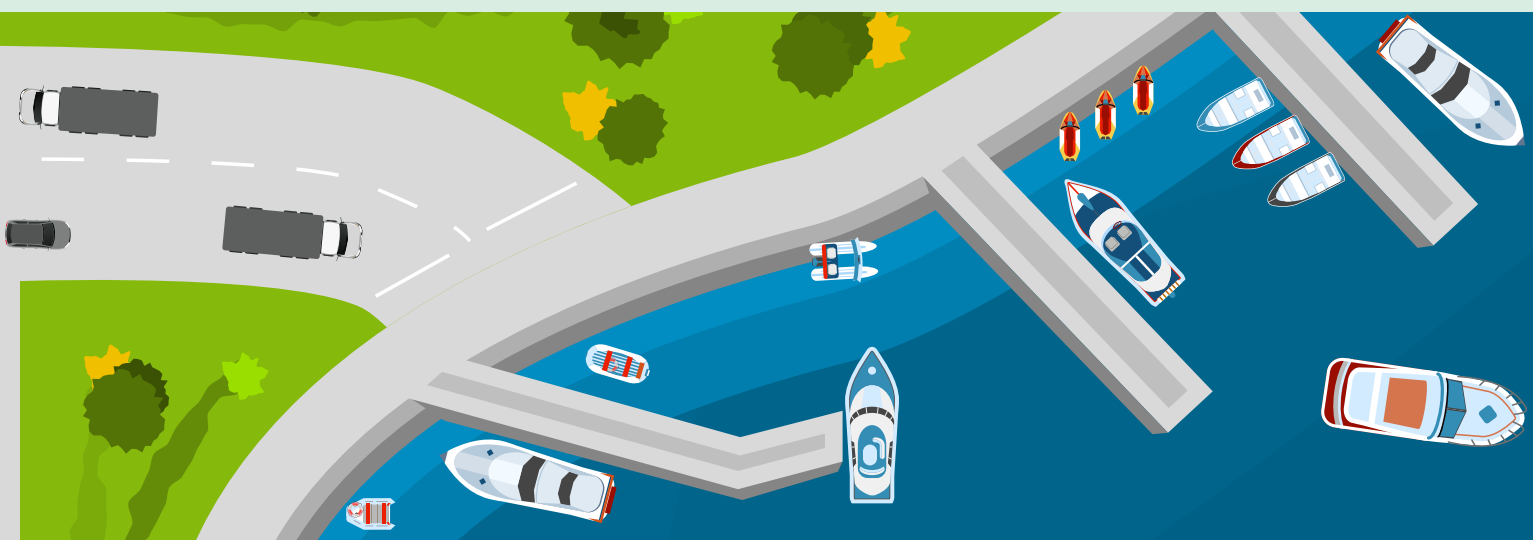
Locations

These are deep water ports built away from the actual ports.

They serve the parent ports by receiving those ships which are unable to approach them due to their large size.

Example

Athens and its out port Piraeus in Greece.





MAJOR PORTS IN INDIA



- The 13 major ports of India handle more than 95 per cent of our foreign trade by volume and 70 per cent by value.
- **Mumbai Port** is the busiest port with largest natural harbour.
- **Kandla Port** developed immediately after independence.
- **Kochi Port** is a natural port located along the coast of Kerala and is popularly known as “Queen of the Arabian Sea”.
- **Chennai:** It is the oldest artificial harbour on the east coast of India. It is often hit by cyclones in October and November, making the shipping difficult. It is not suited for large ships due to lesser depth of water.

